

## General

### Title

Stroke: percentage of ischemic stroke patients for whom an initial National Institutes of Health Stroke Scale (NIHSS) score is performed prior to any acute recanalization therapy in patients undergoing recanalization therapy and documented in the medical record, OR documented within 12 hours of arrival at the hospital ED for patients who do not undergo recanalization therapy.

### Source(s)

The Joint Commission. Disease-specific care certification program. Comprehensive stroke: performance measurement implementation guide. Oakbrook Terrace (IL): The Joint Commission; 2015 Mar. 278 p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of ischemic stroke patients for whom an initial National Institutes of Health Stroke Scale (NIHSS) score is performed prior to any acute recanalization therapy (i.e., intravenous [IV] thrombolytic [t-PA] therapy, or intra-arterial [IA] thrombolytic [t-PA] therapy, or mechanical endovascular reperfusion therapy) in patients undergoing recanalization therapy and documented in the medical record, OR documented within 12 hours of arrival at the hospital emergency department for patients who do not undergo recanalization therapy.

### Rationale

A neurological examination of all patients presenting to the hospital emergency department with warning signs and symptoms of stroke should be a top priority and performed in a timely fashion. Use of a

standardized stroke scale or scoring tool ensures that the major components of the neurological examination are evaluated. Clinical practice guidelines from the American Heart Association/American Stroke Association recommend the National Institutes of Health Stroke Scale (NIHSS) as the preferred scoring tool for this purpose. Scores obtained aid in the initial diagnosis of the patient, facilitate communication among healthcare professionals, and identify patient eligibility for various interventions and the potential for complications.

## Evidence for Rationale

Adams HP, del Zoppo G, Alberts MJ, Bhatt DL, Brass L, Furlan A, Grubb RL, Higashida RT, Jauch EC, Kidwell C, Lyden PD, Morgenstern LB, Qureshi AI, Rosenwasser RH, Scott PA, Wijdicks EF, American Heart Association, American Stroke Association Stroke Council, Clinical Cardiology Council, Cardiovascular Radiology and Intervention Council, Atherosclerotic Peripheral Vascular Disease and Quality of Care Outcomes in Research Interd[TRUNC]. Guidelines for the early management of adults with ischemic stroke: a guideline from the American Heart Association/American Stroke Association Stroke Council, Clinical Cardiology Council, Cardiovascular Radiology and Intervention Council, and the Atherosclerotic Peripheral Vascular Disease and Quality of Care Outcomes in Research Interdisciplinary Working Groups: the American Academy of Neurology affirms the value of this guideline as an educational tool for neurologists. *Stroke*. 2007 May;38(5):1655-711. [PubMed](#)

CÃ´tÃ© R, Hachinski VC, Shurvell BL, Norris JW, Wolfson C. The Canadian Neurological Scale: a preliminary study in acute stroke. *Stroke*. 1986 Jul-Aug;17(4):731-7. [PubMed](#)

Goldstein LB, Samsa GP. Reliability of the National Institutes of Health Stroke Scale. Extension to non-neurologists in the context of a clinical trial. *Stroke*. 1997 Feb;28(2):307-10. [PubMed](#)

Jauch EC, Saver JL, Adams HP, Bruno A, Connors JJ, Demaerschalk BM, Khatri P, McMullan PW, Qureshi AI, Rosenfield K, Scott PA, Summers DR, Wang DZ, Wintermark M, Yonas H, American Heart Association Stroke Council, Council on Cardiovascular Nursing, Council on Peripheral Vascular Disease, Council on Clinical Cardiology. Guidelines for the early management of patients with acute ischemic stroke: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke*. 2013 Mar;44(3):870-947. [PubMed](#)

Kothari RU, Brott T, Broderick JP, Hamilton CA. Emergency physicians. Accuracy in the diagnosis of stroke. *Stroke*. 1995 Dec;26(12):2238-41. [PubMed](#)

Leifer D, Bravata DM, Connors JJ, Hinchey JA, Jauch EC, Johnston SC, Latchaw R, Likosky W, Ogilvy C, Qureshi AI, Summers D, Sung GY, Williams LS, Zorowitz R, American Heart Association Special Writing Group of the Stroke Council, Atherosclerotic Peripheral Vascular Disease Working Group, Council on Cardiovascular Surgery and Anesthesia, Council on Cardiovascular Nursing. Metrics for measuring quality of care in comprehensive stroke centers: detailed follow-up to Brain Attack Coalition comprehensive stroke center recommendations: a statement for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke*. 2011 Mar;42(3):849-77. [PubMed](#)

Morgenstern LB, Lisabeth LD, Mecozi AC, Smith MA, Longwell PJ, McFarling DA, Risser JM. A population-based study of acute stroke and TIA diagnosis. *Neurology*. 2004 Mar 23;62(6):895-900. [PubMed](#)

The Joint Commission. Disease-specific care certification program. Comprehensive stroke: performance measurement implementation guide. Oakbrook Terrace (IL): The Joint Commission; 2015 Mar. 278 p.

## Primary Health Components

Ischemic stroke; National Institutes of Health Stroke Scale (NIHSS); acute recanalization therapy; intravenous (IV) thrombolytic (t-PA) therapy; intra-arterial (IA) thrombolytic (t-PA) therapy; mechanical

endovascular reperfusion therapy

## Denominator Description

Ischemic stroke patients who arrive at the hospital emergency department (ED) (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Ischemic stroke patients for whom a National Institutes of Health Stroke Scale (NIHSS) score is performed prior to any acute recanalization therapy in patients undergoing recanalization therapy and documented in the medical record, OR documented within 12 hours of hospital arrival for patients who do not undergo recanalization therapy (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Additional Information Supporting Need for the Measure

Unspecified

### Extent of Measure Testing

Unspecified

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Emergency Department

Hospital Inpatient

## Professionals Involved in Delivery of Health Services

not defined yet

## Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

## Statement of Acceptable Minimum Sample Size

Specified

## Target Population Age

Age greater than or equal to 18 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Making Care Safer

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

## IOM Domain

Effectiveness

Safety

Timeliness

## Data Collection for the Measure

### Case Finding Period

Unspecified

### Denominator Sampling Frame

Patients associated with provider

### Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Patient/Individual (Consumer) Characteristic

### Denominator Time Window

not defined yet

### Denominator Inclusions/Exclusions

#### Inclusions

Discharges with International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code for ischemic stroke as defined in the appendices of the original measure documentation

#### Exclusions

Patients less than 18 years of age

Patients who have a Length of Stay greater than 120 days

Patients with *Comfort Measures Only* (as defined in the Data Elements) documented on the day of or day after hospital arrival

Patients admitted for *Elective Carotid Intervention* (as defined in the Data Elements)

Patients who do not undergo recanalization therapy and are discharged within 12 hours of arrival at this hospital

### Exclusions/Exceptions

not defined yet

### Numerator Inclusions/Exclusions

## Inclusions

Patients with documented thrombolytic (intravenous [IV] or intra-arterial [IA] thrombolytic [t-PA]) therapy (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] Principal or Other Procedure Codes as defined in the appendices of the original measure documentation), OR  
Patients with documented mechanical endovascular reperfusion therapy (ICD-9-CM Principal or Other Procedure Codes as defined in the appendices of the original measure documentation)

## Exclusions

None

## Numerator Search Strategy

Institutionalization

## Data Source

Administrative clinical data

Paper medical record

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

- The National Institutes of Health Stroke Scale (NIHSS)
- Comprehensive Stroke (CSTK) Initial Patient Population Algorithm Flowchart
- CSTK-01: National Institutes of Health Stroke Scale (NIHSS Score Performed for Ischemic Stroke Patients) Flowchart

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Standard of Comparison

not defined yet

## Identifying Information

### Original Title

CSTK-01: National Institutes of Health Stroke Scale (NIHSS score performed for ischemic stroke patients).

### Measure Collection Name

Advanced Certification in Disease-specific Care Measures

### Measure Set Name

Comprehensive Stroke Standardized Performance Measures

### Submitter

The Joint Commission - Health Care Accreditation Organization

### Developer

The Joint Commission - Health Care Accreditation Organization

### Funding Source(s)

All external funding for measure development has been received and used in full compliance with The Joint Commission's corporate sponsorship policies, which are available upon written request to The Joint Commission.

### Composition of the Group that Developed the Measure

Unspecified

### Financial Disclosures/Other Potential Conflicts of Interest

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with The Joint Commission's conflict of interest policies, copies of which are available upon written request The Joint Commission.

### Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC

2015 Mar

## Measure Maintenance

This measure is reviewed and updated by the developing organization every 6 months.

## Date of Next Anticipated Revision

2015 Jul

## Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in April 2016.

## Measure Availability

Source available from [The Joint Commission Web site](#) .

For more information, contact The Joint Commission at One Renaissance Blvd., Oakbrook Terrace, IL 60181; Phone: 630-792-5800; Fax: 630-792-5005; Web site: [www.jointcommission.org](http://www.jointcommission.org)

.

## NQMC Status

This NQMC summary was completed by ECRI Institute on May 19, 2015. The information was verified by the measure developer on June 22, 2015.

The information was reaffirmed by the measure developer on April 6, 2016.

## Copyright Statement

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

## Production

### Source(s)

The Joint Commission. Disease-specific care certification program. Comprehensive stroke: performance measurement implementation guide. Oakbrook Terrace (IL): The Joint Commission; 2015 Mar. 278 p.

## Disclaimer

### NOMC Disclaimer



The National Quality Measures Clearinghouse (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the [NQMC Inclusion Criteria](#).

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.